

In the specification:

Please amend the Title of the Invention to read as follows:

Method and Apparatus for Simultaneous Measurement of Electric Field and Temperature Using an Electrooptic Semiconductor Probe

Please amend the Abstract of the Disclosure to read as follows:

ABSTRACT OF THE DISCLOSURE

An apparatus and method to simultaneously measure electric and thermal fields with a single probe. Using an electrooptic semiconductor probe, [The] the Pockels effect is employed to measure electric field magnitude and phase, within a gallium arsenide probe to measure electric fields, and the effect of photon absorption due to bandtail states in the semiconductor is used to determine measure temperature. Techniques to scale relative electric-field measurements to absolute units (volts/meter), stabilize electric-field phase drift, and calibrate electric-field data that is corrupted when the probe is used in regions where temperature gradients exist are provided.